

Translation

PATENT COOPERATION TREATY

PCT/FR2003/000861



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 62778	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/000861	International filing date (day/month/year) 18 mars 2003 (18.03.2003)	Priority date (day/month/year) 29 mars 2002 (29.03.2002)
International Patent Classification (IPC) or national classification and IPC H03F 3/58, H01J 23/027		
Applicant THALES		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of            sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 octobre 2003 (24.10.2003)	Date of completion of this report 30 August 2004 (30.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/FR2003/000861

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description: \_\_\_\_\_, as originally filed  
 pages 1-9  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims: \_\_\_\_\_, as originally filed  
 pages 1-11  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings: \_\_\_\_\_, as originally filed  
 pages 1/8-8/8  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description: \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/FR 03/00861

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

**2. Citations and explanations**

Reference is made to the following documents:

D1: US-A-5 550 432 (BARKER ROBERT J) 27 August 1996  
(1996-08-27)

D2: US-A-4 701 717 (RADERMACHER WILHELM ET AL) 20  
October 1987 (1987-10-20)

1. Claim 1: The subject matter of claim 1 does not involve an inventive step within the meaning of PCT Article 33(3), for the following reasons.

D1, which is considered the closest prior art, describes (the references between parentheses relate to D1) a method (figure 8) for measuring the RF output power of an amplifier with a microwave tube (70, 75, 76, 77). The tube comprises an electron gun supplying an electron beam (13); an RF circuit (72) for interaction between an RF signal and the electron beam, the RF circuit having an amplified RF signal output; a collector having at least two electrodes (71, 6) for collecting the electron beam, these electrodes being respectively at increasing distances from the gun, the first electrode being the closest to the gun (see the description, column 8, lines 12-40).

The subject matter of claim 1 differs from the circuit of D1 because the RF output power of the amplified RF signal

is determined from the measurement of the current from the first electrode, the RF output power being calculated by a predetermined relationship between said current and the output power of the amplifier.

However, these features have already been used for the same purpose in a similar tracker circuit (see D2, figure 1 elements SR and SV, and the description from column 3, line 17 to column 3, line 36). It is obvious for a person skilled in the art to use these features, with a corresponding effect, in a tracker circuit according to D1 and thus obtain a tracker circuit according to claim 1. The subject matter of claim 1 does not, therefore, involve an inventive step (PCT Article 33(3)).

2. Claim 7: The subject matter of claim 7 is the device embodying the method defined in claim 1. All the features of claim 7 are disclosed by the combination of D1 and D2. The subject matter of claim 7 does not, therefore, involve an inventive step (PCT Article 33(3)).

3. Claims 2-6 and 8-10: dependent claims 2-6 and 8-10 do not appear to contain any additional feature which, in combination with the subject matter of any of the claims on which they are dependent, defines subject matter that complies with the PCT requirements for inventive step (PCT Article 33(3)). The teaching of D1 (figure 8) and D2 (figure 1) describes all the additional features of dependent claims 2-8 (see also the description of D1, column 6, lines 28-39). The subject matter of dependent claims 2-9 does not, therefore, involve an inventive step (PCT Article 33(3)).